

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-50 (canceled)

Claim 51 (currently amended): A method for screening a small organic molecule for the ability to modulate heat shock protein receptor activity comprising:

- (a) contacting heat shock protein receptor positive cells with the small organic molecule; and
- (b) comparing the level of heat shock protein receptor binding activity in the heat shock protein receptor positive cells contacted with the small organic molecule to the amount of heat shock protein receptor binding activity in ~~the~~ such heat shock protein receptor positive cells not so contacted,

wherein an increase or decrease in the amount of heat shock protein receptor binding activity in the contacted heat shock protein receptor positive cells relative to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted indicates that the small organic molecule has the ability to modulate heat shock protein receptor activity.

Claims 52 - 54: (canceled)

[#] Claim 55 (previously presented): The method of claim 51 wherein the level of heat shock protein receptor binding activity is assayed by measuring the ability of the small organic molecule to bind to the heat shock protein receptor positive cells.

Claim 56 (currently amended): A method for screening a molecule for the ability to modulate heat shock protein receptor activity comprising:

- (a) contacting heat shock protein receptor positive cells with the molecule; and
- (b) comparing the level of heat shock protein receptor binding activity in the heat shock protein receptor positive cells contacted with the molecule to the amount of heat shock protein receptor binding activity in ~~the~~ such heat shock protein receptor positive cells not so contacted,

wherein an increase or decrease in the amount of heat shock protein receptor binding activity in the contacted heat shock protein receptor positive cells relative to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted indicates that the molecule has the ability to modulate heat shock protein receptor activity, wherein the level of heat shock protein receptor binding activity is assayed by measuring the ability of the molecule to modulate the binding of a heat shock protein or a heat shock protein-peptide complex to the cells.

Claim 57 (previously presented): The method of claim 51 or 56 wherein the heat shock protein receptor binding activity is the ability to interact with a heat shock protein receptor antibody.

Claim 58 (previously presented): The method of claim 56 wherein the molecule decreases the binding of the heat shock protein or the heat shock protein-peptide complex to the cells.

Claim 59 (previously presented): The method of any one of claims 56 to 58 wherein the heat shock protein is an Hsp70, an Hsp 90, or gp96.

Claims 60 - 62 (canceled)

Claim 63 (previously presented): The method of claim 56 wherein the molecule is a peptide or protein, or derivative, analog or fragment thereof.

Claim 64 (previously presented): The method of claim 63 wherein the peptide is a member of a peptide library.

Claim 65 (previously amended): The method of claim 56 wherein the molecule is a small organic molecule, a nonpeptide, or an antibody.

Claim 66 (previously presented): The method of claim 65 wherein the nonpeptide is a member of a nonpeptide library.

Claim 67 (previously presented): The method of claim 51 or 65 wherein the small organic molecule is a member of a small molecule library.

Claim 68 (previously presented): The method of claim 51 wherein the small organic molecule is attached to a solid surface.

Claim 69 (currently amended): A method for identifying a molecule potentially useful for the treatment of cancer comprising carrying out the method of claim 51 or 56, further comprising the step of administering the molecule to a non-human animal having a tumor, and determining whether the molecule alters tumor progression in the non-human animal.

Claim 70 (currently amended): A method for identifying a molecule potentially useful for the treatment of an infectious disease comprising carrying out the method of claim 51 or 56, further comprising the step of administering the molecule to a non-human animal infected with a pathogen, and determining whether the molecule ameliorates the infectious disease in the non-human animal.

Claim 71 (currently amended): A method for identifying a molecule potentially useful for the treatment of an autoimmune disease comprising carrying out the method of claim 51 or 56, further comprising the step of administering the molecule to a non-human animal suffering from an autoimmune disease, and determining whether the molecule ameliorates the autoimmune disease in the non-human animal.

Claims 72 - 76: (canceled)

Claim 77 (previously presented): The method of claim 51 or 56, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

Claim 78 (previously presented): The method of claim 51 or 56, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

Claim 79 (currently amended): A method for screening a plurality of molecules for one or more molecules having the ability to modulate, directly or indirectly, the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells in vitro comprising:

- (a) contacting said plurality of molecules with: (i) heat shock protein receptor positive cells; (ii) a purified complex of a heat shock protein and a peptide; and (iii) cytotoxic T cells, under conditions conducive to the activation of cytotoxic T cells; and

- (b) comparing antigenic cell cytotoxicity of said T cells with the antigenic cell cytotoxicity of T cells contacted with said heat shock protein receptor positive cells and said purified complex under said conditions, but in the absence of said plurality of molecules,

wherein a lower or higher degree of cytotoxicity indicates that one or more molecules in said plurality of molecules modulates the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells against the peptide.

Claim 80 (currently amended): A method for screening an antibody specific to a heat shock protein or specific to a heat shock protein receptor for the ability to modulate, directly or indirectly, the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells in vitro comprising:

- (a) contacting the antibody with heat shock protein receptor positive cells and cytotoxic T cells under conditions conducive to the activation of cytotoxic T cells; and
- (b) comparing antigenic cell cytotoxicity of said T cells with the antigenic cell cytotoxicity of T cells contacted with said heat shock protein receptor positive cells under said conditions, but in the absence of said antibody,

wherein a lower or higher degree of cytotoxicity indicates that the antibody modulates the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells against the antibody.

Claim 81 (currently amended): A method for screening a molecule for the ability to modulate, directly or indirectly, the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells in vitro comprising:

- (a) contacting the molecule with: (i) purified heat shock protein receptor positive cells; (ii) a purified complex of a heat shock protein and a peptide; and (iii) cytotoxic T cells, under conditions conducive to the activation of cytotoxic T cells; and
- (b) comparing antigenic cell cytotoxicity of said T cells with the antigenic cell cytotoxicity of T cells contacted with said heat shock protein receptor positive cells and said purified complex under said conditions, but in the absence of said molecule,

wherein a lower or higher degree of cytotoxicity indicates that the molecule

modulates the ability of heat shock protein receptor positive cells to stimulate the activation of cytotoxic T cells against the peptide.

Claim 82 (currently amended): A method for screening a plurality of molecules for one or more molecules having the ability to modulate, directly or indirectly, antigen presentation activity of heat shock protein receptor positive cells comprising:

- (a) contacting said plurality of molecules with heat shock protein receptor positive cells;
- (b) measuring antigen presentation by said heat shock protein receptor positive cells in the presence of said plurality of molecules; and
- (c) comparing antigen presentation activity by the heat shock protein receptor positive cells in the presence of said plurality of molecules with the antigen presentation activity by the heat shock protein receptor positive cells in the absence of said plurality of molecules,

wherein a lower or higher degree of antigen presentation indicates that one or more molecule(s) modulates the antigen presentation activity of the heat shock protein receptor positive cells.

Claim 83 (previously presented): A method for screening an antibody specific to a heat shock protein or a heat shock protein receptor for the ability to modulate, directly or indirectly, antigen presentation activity of heat shock protein receptor positive cells comprising:

- (a) contacting an antibody specific to a heat shock protein or a heat shock protein receptor with heat shock protein receptor positive cells;
- (b) measuring antigen presentation by said heat shock protein receptor positive cells in the presence of said antibody; and
- (c) comparing antigen presentation activity by the heat shock protein receptor positive cells in the presence of the antibody with the antigen presentation activity by the heat shock protein receptor positive cells in the absence of the antibody,

wherein a lower or higher degree of antigen presentation indicates that the antibody modulates the antigen presentation activity of the heat shock protein receptor positive cells.

Claim 84 (previously presented): A method for screening a molecule for the ability to modulate, directly or indirectly, antigen presentation activity of heat shock protein receptor

positive cells comprising:

- (a) contacting a molecule with: (i) a purified complex of a heat shock protein and a peptide; and (ii) purified heat shock protein receptor positive cells;
- (b) measuring antigen presentation by said heat shock protein receptor positive cells in the presence of said molecule; and
- (c) comparing the antigen presentation activity by the purified heat shock protein receptor positive cells in the presence of the molecule with the antigen presentation activity by purified heat shock protein receptor positive cells in the absence of the molecule,

wherein a lower or higher degree of antigen presentation indicates that the molecule modulates the antigen presentation activity of the heat shock protein receptor positive cells.

Claim 85 (previously presented): The method of claim 82, 83, or 84, wherein measuring antigen presentation is carried out by measuring representation of a peptide by an MHC molecule.

Claim 86 (previously presented): The method of claim 81 or 84, wherein the molecule is a peptide or protein, or derivative, analog or fragment thereof.

Claim 87 (previously presented): The method of claim 81 or 84, wherein the molecule is a small organic molecule or a nonpeptide.

Claim 88 (previously presented): The method of claim 87, wherein the nonpeptide is a member of a nonpeptide library.

Claim 89 (previously presented): The method of claim 87, wherein the small organic molecule is a member of a small molecule library.

Claim 90 (previously presented): The method of claim 81 or 84, wherein the molecule is attached to a solid surface.

Claim 91 (previously presented): The method of claim 80 or 83, wherein the antibody is attached to a solid surface.

Claim 92 (previously presented): The method of claim 79, 80, 81, 82, 83, or 84, wherein the heat shock protein receptor positive cells are macrophage or dendritic cells.

Claim 93 (currently amended): A method for identifying a molecule potentially useful for the treatment of cancer comprising carrying out the method of claim 79, 81, 82, or 84, further comprising the step of administering the molecule to a non-human animal having a tumor, and determining whether the molecule alters tumor progression in the non-human animal.

Claim 94 (currently amended): A method for identifying an antibody potentially useful for the treatment of cancer comprising carrying out the method of claim 80 or 83, further comprising the step of administering the antibody to a non-human animal having a tumor, and determining whether the antibody alters tumor progression in the non-human animal.

Claim 95 (currently amended): A method for identifying a molecule potentially useful for the treatment of an infectious disease comprising carrying out the method of claim 79, 81, 82, or 84, further comprising the step of administering the molecule to a non-human animal infected with a pathogen, and determining whether the molecule ameliorates the infectious disease in the non-human animal.

Claim 96 (currently amended): A method for identifying an antibody potentially useful for the treatment of an infectious disease comprising carrying out the method of claim 80 or 83, further comprising the step of administering the antibody to a non-human animal infected with a pathogen, and determining whether the antibody ameliorates the infectious disease in the non-human animal.

Claim 97 (currently amended): A method for identifying a molecule potentially useful for the treatment of an autoimmune disease comprising carrying out the method of claim 79, 81, 82, or 84, further comprising the step of administering the molecule to a non-human animal suffering from an autoimmune disease, and determining whether the molecule ameliorates the autoimmune disease in the non-human animal.

Claim 98 (currently amended): A method for identifying an antibody potentially useful for the treatment of an autoimmune disease comprising carrying out the method of claim 80 or 83, further comprising the step of administering the antibody to a non-human animal suffering from an autoimmune disease, and determining whether the antibody ameliorates the autoimmune disease in the non-human animal.

Claim 99 (previously presented): The method of claim 79, 80, 81, 82, 83, or 84, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

Claim 100 (previously presented): The method of claim 79, 80, 81, 82, 83, or 84, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

Claim 101 (previously amended): The method of claim 81 or 84, wherein the molecule is purified.

Claim 102 (previously presented): The method of claim 80 or 83, wherein the antibody is purified.

Claim 103 (previously amended): A method for screening a peptide library for the ability to modulate heat shock protein receptor activity comprising:

- (a) contacting heat shock protein receptor positive cells with a member of a peptide library; and
- (b) comparing the level of heat shock protein receptor binding activity in the heat shock protein receptor positive cells contacted with the member of the peptide library to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted,

wherein an increase or decrease in the amount of heat shock protein receptor binding activity in the contacted heat shock protein receptor positive cells relative to the amount of heat shock protein receptor binding activity in the heat shock protein receptor positive cells not so contacted indicates that the member of the peptide library has the ability to modulate heat shock protein receptor activity.

Claim 104 (previously presented): The method of claim 103 wherein the level of heat shock protein receptor binding activity is assayed by measuring the ability of the member of the peptide library to bind to the heat shock protein receptor positive cells.

Claim 105 (previously presented): The method of claim 103 wherein the heat shock protein receptor binding activity is the ability to interact with a heat shock protein receptor antibody.

Claim 106 (previously presented): The method of claim 103 wherein the member of the peptide library is attached to a solid surface.

Claim 107 (currently amended): A method for identifying a molecule potentially useful for the treatment of cancer comprising carrying out the method of claim 103, further comprising the step of administering the member of the peptide library to a non-human animal having a tumor, and determining whether the molecule alters tumor progression in the non-human animal.

Claim 108 (currently amended): A method for identifying a molecule potentially useful for the treatment of an infectious disease comprising carrying out the method of claim 103, further comprising the step of administering the member of the peptide library to a non-human animal infected with a pathogen, and determining whether the molecule ameliorates the infectious disease in the non-human animal.

Claim 109 (currently amended): A method for identifying a molecule potentially useful for the treatment of an autoimmune disease comprising carrying out the method of claim 103, further comprising the step of administering the molecule to a non-human animal suffering from an autoimmune disease, and determining whether the molecule ameliorates the autoimmune disease in the non-human animal.

Claim 110 (previously presented): The method of claim 103, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

Claim 111 (previously presented): The method of claim 103, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

Claim 112 (previously presented): The method of claims 79 or 82, wherein the molecules are peptides or proteins, or derivatives, analogs or fragments thereof.

Claim 113 (previously presented): The method of claim 79 or 82, wherein the molecules are a small organic molecules or a nonpeptides.

Claim 114 (previously presented): The method of claim 79 or 82, wherein the molecules are attached to a solid surface.

Claim 115 (previously presented): The method of claim 79 or 82, wherein the molecules are purified.

Claim 116 (previously presented): The method of claim 69, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

Claim 117 (previously presented): The method of claim 70, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

Claim 118 (previously presented): The method of claim 71, wherein the heat shock protein receptor is selected from the group consisting of an Hsp70 receptor, an Hsp 90 receptor, and a gp96 receptor.

Claim 119 (previously presented): The method of claim 69, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

Claim 120 (previously presented): The method of claim 70, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.

Claim 121 (previously presented): The method of claim 71, wherein the heat shock protein receptor positive cells are purified from heat shock protein receptor negative cells.